

Presentation of the invention

The invention proposes to overcome these disadvantages.

5       The invention proposes a multipole magnetic confinement structures for overcoming these disadvantages, while providing a very high confinement efficiency for charged plasma species.

10       Therefore, the invention proposes a device for confinement of plasma in a chamber comprising means of creating a magnetic field, ...

CLAIMS

1. Device for confinement of plasma (5) in a chamber (1) in a large volume, comprising means of creating a magnetic field, the said means comprising a series of permanent magnets (3) arranged inside the chamber, at a distance from the walls of the chamber capable of creating a magnetic field presenting an alternating multipole magnetic structure to the plasma, the magnets being discontinuously distributed around the volume, characterised in that the magnets (3) are at a distance from the walls (2) of the chamber by support rods (4), the support rods (4) extending along the axis of magnetisation of the said magnets and being arranged so that they are centred on the poles of the permanent magnets, such that the walls (2) are outside the effective influence area of the magnets (3).

2. Device according to claim 1, characterised in that the support rods (4) extend perpendicular to the walls of the chamber.

3. Device according to either claim 1 or 2, characterised in that the series of permanent magnets (3) is in a discontinuous checkerboard type structure.

4. Device according to one of claims 1 to 3, characterised in that the series of permanent magnets (3) is in a discontinuous structure with interrupted line.

5. Device according to one of claims 1 to 4, characterised in that the permanent magnets (3) have a symmetry of revolution.

6. Device according to one of claims 1 to 5,  
characterised in that the permanent magnets are  
cylindrical.